Name:

Class:

**Experimental Design Practice-Ac**

1. In an attempt to determine if bees have a preference for flower size, researchers placed 100 bees of the same species in an enclosed room with two sets of flowers. The flowers were all of the same daisy species but some were normal sized and some were grown to be extra large.

Hypothesis:

Independent Variable:

Dependent Variable:

Constants:

Control Group:

Experimental Group:

1. A farmer wanted to determine if a particular fertilizer was worth the money to use on her field. She left one field alone but on another field with the same type of soil she used the fertilizer and grew her corn crop.

Hypothesis:

Independent Variable:

Dependent Variable:

Constants:

Control Group:

Experimental Group:

1. A talk show host wanted to see if his audience stayed more alert so he could get more laughs if the room was colder. One night he reduced the auditorium by 15 degrees and compared the audience volume to his normal nights.

Hypothesis:

Independent Variable:

Dependent Variable:

Constants:

Control Group:

Experimental Group:

1. John was learning to cook and the recipe said to add salt to the water to boil pasta. He wondered if adding salt affected how long it took the water to boil. He boiled two pots of water –one with and one without salt –to see how long the water would take to boil.

Hypothesis:

Independent Variable:

Dependent Variable:

Constants:

Control Group:

Experimental Group:

1. Do Band-aids really help heal wounds faster? Try comparing two wounds of similar size and age by covering one with a band-aid and one without to see how long each takes to heal.

Hypothesis:

Independent Variable:

Dependent Variable:

Constants:

Control Group:

Experimental Group:

1. Review sheets do help you remember the information for the test-or do they? Try studying for an hour without a review sheet and have your friend study for an hour with the review sheet. Compare your results on the test! Is this a truly controlled test? How could it be improved?

Hypothesis:

Independent Variable:

Dependent Variable:

Constants:

Control Group:

Experimental Group:

1. Learning a second language takes risk! You need to be brave and practice using your new words to make sentences. Young kids aren’t as shy as teens or even adults that are learning a new language. Compare children from the ages of 5-10 to young adults the ages of 15-20 to see how many new words they can learn in the same amount of time given the same language training.

Hypothesis:

Independent Variable:

Dependent Variable:

Constants:

Control Group:

Experimental Group:

1. Do you love chocolate? Ever notice a pimply breakout right after eating some? Do you really think there is a connection or is it just coincidence? Test your hypothesis by eating one piece of chocolate and counting how many pimples you have four days later. Repeat by eating two pieces of chocolate. What should be your control test?

Hypothesis:

Independent Variable:

Dependent Variable:

Constants:

Control Group:

Experimental Group:

1. You write your own experiment and identify each element.

Experiment:

Hypothesis:

Independent Variable:

Dependent Variable:

Constants:

Control Group:

Experimental Group: